Subject: Re: Merging Bytarr
Posted by Craig Markwardt on Tue, 16 Jan 2001 06:23:04 GMT

"Mark Chan" <chanm@cadvision.com> writes:

> I am new to bytarr operation.
>
> I have 3 separate color images in the following format:
>
> bytarr(3,40,15500)
> bytarr(3,40,15500)
> bytarr(3,40,4000)
>
> Each representing a portion of a large image. They were read from 3 separate
> files.
>
> What is the easiest way to combine these 3 files into one file and output it
> to a single file for later operation.

I am assuming you want to concatenate the three arrays into a
3x40x35000 array. If that's the case then the following code shold
show you the way, here using three arrays BB1, BB2 and BB3 as a
example

IDL> bb1 = bytarr(3,40,100)
IDL> bb2 = bytarr(3,40,200)
IDL> bb3 = bytarr(3,40,400)

IDL> help, [[[bb1]],[[bb2]],[[bb3]]]
<Expression>   BYTE   = Array[3, 40, 700]

Voila. To be honest with you, I never understand how many nested []'s
I need in order to make it work. I just go for trial and error until
it does.

Craig

--

 -- --------------
Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
 -- --------------

Subject: Re: Merging Bytarr
Posted by Pavel A. Romashkin on Tue, 16 Jan 2001 18:52:54 GMT

Craig Markwardt wrote:

> Voila. To be honest with you, I never understand how many nested []'s
> I need in order to make it work. I just go for trial and error until
> it does.

Thanks Craig. I feel so much better that I am not the only one doing
this all the time :-(

Cheers,
Pavel

Subject: Re: Merging Bytarr
Posted by Mark Chan on Wed, 17 Jan 2001 04:19:11 GMT

Thanks Craig.

I used this clumsy way:
d=bytarr(3,40,700)
d(0,0,0)=a & d(0,0,200)=b & d(0,0,300)=c

You way is better.

What throws me off in the first place was that the image, when shown on
screen, was 40 wide and 100 high, the next one 200 high, and the last one
400 high. To be pasted into 40 wide x 700 wide. The sequence of the
(3,40,etc) was not the same as my experience with other array indices (may
be I am missing something).

Thanks,
Mark Chan

"Craig Markwardt" <craigmnet@cow.physics.wisc.edu> wrote in message
news:on8zoct3qv.fsf@cow.physics.wisc.edu...
>
> "Mark Chan" <chanm@cadvision.com> writes:
>
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>>
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>>
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>>
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>
> IDL> help, [[[bb1]],[[bb2]],[[bb3]]]
> <Expression>   BYTE   = Array[3, 40, 700]
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> Voila. To be honest with you, I never understand how many nested []'s
> I need in order to make it work. I just go for trial and error until
> it does.
>
> Craig
>
> --
> -- --------------
> Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
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> -- --------------

Subject: Re: Merging Bytarr
Posted by Craig Markwardt on Wed, 17 Jan 2001 15:03:05 GMT
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Hi Mark--

"Mark Chan" <chanm@cadvision.com> writes:
> Thanks Craig.
>
> I used this clumsy way:
> d=bytarr(3,40,700)
> d(0,0,0)=a & d(0,0,200)=b & d(0,0,300)=c
>
> You way is better.

Actually, your way is *faster*, and with the use of TEMPORARY can potentially use less memory. However the disadvantage is that you have to know ahead of time the dimensions of your array. I definitely use above technique alot. The technique I suggested, [[[a]],[[b]],[[c]]], is very elegant syntactically, and works with any 3x40xN arrays. Since you are a relative newcomer to the group (right?), I went with simple over efficient.

> What throws me off in the first place was that the image, when shown on
> screen, was 40 wide and 100 high, the next one 200 high, and the last one
> 400 high. To be pasted into 40 wide x 700 wide. The sequence of the
> (3,40,etc) was not the same as my experience with other array indices (may
> be I am missing something).

I am assuming the "3" in 3x40xN are the three elements of an RGB triple? In that case, you really have a 40xN image, where 40 will be along the X axis and N will be along the Y axis. I *think* so at least. So this seems to jive with what you were describing. You can always use the TRANSPOSE function to flip X and Y.

Craig

--
 --- --------------
Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
 --- --------------

Subject: Re: Merging Bytarr
Posted by Stein Vidar Hagfors H[1] on Wed, 17 Jan 2001 17:01:46 GMT
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"Pavel A. Romashkin" <pavel.romashkin@noaa.gov> writes:
> Craig Markwardt wrote:
>
>> Voila. To be honest with you, I never understand how many nested []'s
>> I need in order to make it work. I just go for trial and error until
>> it does.
>
> Thanks Craig. I feel so much better that I am not the only one doing
> this all the time :-(

Me too!

By the way, it seems RSI cannot make sense of it themselves, try this:

help,[[[1]],[[1]]]
help,[[[[1]]],[[[1]]]]

Doesn't seem to have been fixed in 5.4 either! (This really surprises me!)

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Stein Vidar Hagfors Haugan
ESA SOHO SOC/European Space Agency Science Operations Coordinator for SOHO

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